

A NEW SPECIES OF THE GENUS *NEOPERLA* (PLECOPTERA, PERLIDAE) FROM CHINA

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Abstract A new species of the genus *Neoperla*, *N. siveci* sp. nov. is described from Taiwan of China. The type material is deposited in the Entomological Museum of China Agricultural University (CAU) and the Insect Collection of Henan Institute of Science and Technology.

Key words Plecoptera, Perlidae, *Neoperla*, new species.

Neoperla Needham, 1905 is the second largest genus in Perlidae with more than 200 known species (DeWalt *et al.*, 2012). The Chinese species of *Neoperla* were mainly described by Chu (1929), Wu (1935a, 1935b, 1938, 1948, 1962, 1973), Du (1999, 2000a, 2000b), Du and Sivec (2004, 2005), Du and Wang (2005, 2007), Du *et al.* (2001), Li *et al.* (2011), Li *et al.* (2011), Sivec and Zwick (1987), Yang, C and Yang, D (1990, 1991), Yang, D and Yang, C (1993 a, 1993b, 1995a, 1995b, 1996, 1998). In the present paper, a new species of *Neoperla* is described from Taiwan, China. The type material is deposited in the Entomological Museum of China Agricultural University (CAU), Beijing and the Insect collection of Henan Institute of Science and Technology, Xinxiang (HIST). Aedeagus and internal sac were everted with the cold maceration technique (Zwick, 1983).

Neoperla siveci sp. nov. (Figs 1–4)

Diagnosis. The new species is defined by the head with a pair of crescent darker areas extended from inner margins of ocelli and a wing-like brown marking on anterior portion of frons. The aedeagal tube is tubular and sinuous and the sac is very short (ca. 1/5 of tube length), with triangular dorsomesal spinous patches (ca. 45) and several rows of ventral spinules apically (ca. 26).

Male. Forewing length 11.4 – 11.6 mm. Biocellate, distance between ocelli slightly shorter than diameter of ocelli. Head slightly wider than pronotum, mostly brownish and lateral margins pale; a pair of crescent darker areas extended from inner margins of ocelli and a wing-like brown marking present on anterior portion of frons; compound eyes dark;

antennae pale yellow. Thorax pale brownish, pronotum with median stripe and scattered brown markings, anterior and posterolateral margins dark brown; wings membrane hyaline with veins brown; legs brownish but tibia darker. Abdomen brownish with hemiterga darker.

Genitalia (Figs 1–4). Tergum 7 with posterior margin produced into a long triangular process with tip pointed and beak-like in lateral view. Tergum 8 medially heavily sclerotized, with an erect process covered with several small spines. Tergum 9 with two patches of sensilla. Hemitergal processes of tergum 10 strongly sclerotized and straight in shape. Aedeagal tube tubular and sinuous, mostly sclerotized. Aedeagal sac very short (ca. 1/5 of tube length), with triangular dorsomesal spinous patches (ca. 45) and several rows of ventral spinules apically (ca. 26).

Female. Unknown.

Holotype ♂ (CAU), China, Taiwan, Pingdong, Mudan, Shimen Village, 8 Nov. 2010, YANG Ding. **Paratype** 1 ♂ (HIST), same data as holotype.

Distribution. China (Taiwan).

Etymology. The species is named after Dr. Ignac Sivec, in recognition of his great contribution to the genus.

Remarks. The new species is closely related to *N. sauteri* Klapalek from Taiwan but can be separated from the latter by the relative short aedeagal sac (ca. 1/5 of tube length) and much less ventral armature of the sac at a straight apex. In *N. sauteri*, the aedeagal sac is nearly as long as the tube, and aedeagal sac bears a long band of spines tapering to a hook-like apex (Sivec and Zwick, 1987).

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Figs 1–4. *Neoperla siveci* sp. nov., male. 1. Head and pronotum. 2, 4. Terminalia. 3. Aedeagus. 1–2. Dorsal view. 3–4. Lateral view.

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中国新蜉属（蜉翅目，蜉科）一新种记述

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摘要 记述采自台湾1新种，赛氏新蜉 *Neoperla sivcei* sp. nov., 并讨论了其与近似种的区别。模式标本保存分别在中国农业大学昆虫博物馆和河南科技学院标本馆。

赛氏新蜉，新种 *Neoperla sivcei* sp. nov. (图1~4)

新种腹部第7背板隆突和第8背板的骨化突特征与邵氏新蜉 *Neoperla sauteri* Klapalek, 1912 非常近似。二者的主要区

别在于：新种雄虫阳茎囊非常短，约为阳茎管的1/5，阳茎囊腹面刺较少，顶端略直；而邵氏新蜉雄虫阳茎囊长度略短于阳茎管，阳茎管囊腹面刺较多，端部呈钩状。

正模 ♂，台湾屏东石门村，2010-11-08，杨定采。副模 1 ♂，同正模。

词源：新种种名源自蜉翅学家 Ignac Sivce 博士的姓氏。

关键词 蜉翅目，蜉科，新蜉属，新种。

中图分类号 Q969.24